MONTHLY WEATHER REVIEW.

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INTRODUCTION.

This REVIEW contains a general summary of the meteorological conditions which prevailed over the United States and Canada during December, 1885, based upon the reports from the regular and voluntary observers of the Signal Service and from co-operating state weather services.

Descriptions of the storms which occurred over the north Atlantic Ocean during the month are also given, and their approximate paths shown on chart i.

The paths of the centres of ten areas of low pressure are traced on the chart for December, 1885, the average number for that month during the last twelve years being 12.6.

The month was warmer than the average in all districts west of the Mississippi River, except in the west Gulf states, where the temperature was normal; in the south Atlantic and east Gulf states the month was colder than the average; in the northern districts east of the Mississippi River the departures were slight, though generally above the normal temperature.

The rainfall was below the average over the greater part of the country, the deficiencies being greatest in the Ohio Valley, Tennessee, west Gulf states, and north Pacific coast region. Along the Atlantic coast, south of New England, the precipitation was above the average, the excess being greatest on the south Atlantic coast.

With this REVIEW are published two additional charts, numbers v and vi. The former exhibits the annual isotherms for 1885, and the departures from the normal temperature; the latter shows the annual precipitation for the same year.

In the preparation of this REVIEW the following data, received up to January 20, 1886, have been used, viz., the regular tri-daily weather-charts, containing data of simultaneous observations taken at one hundred and thirty-three Signal Service stations and eighteen Canadian stations, as telegraphed to this office; one hundred and sixty-one monthly journals and one hundred and sixty-three monthly means from the former, and eighteen monthly means from the latter; two hundred and ninety monthly registers from voluntary observers; forty-four monthly registers from United States Army post surgeons; marine records; international simultaneous observations; marine reports through the co-operation of the "New York Herald Weather Service;" abstracts of ships' logs, furnished by the publishers of "The New York Maritime Register;" monthly weather reports from the New England Meteorological Society, and from the local weather services of Alabama, Indiana, Iowa, Minnesota, Missouri, Nebraska, Ohio, and Tennessee, and of the Central Pacific Railway Company; trustworthy newspaper extracts, and special reports.

ATMOSPHERIC PRESSURE.

[*Expressed in inches and hundredths.*]

The mean atmospheric pressure for December, 1885, determined from the tri-daily telegraphic observations of the Signal Service, is shown by isobarometric lines on chart iv.

The mean pressure for the month is greatest over the central Rocky Mountain districts and least over the Canadian Maritime Provinces. Over the first-mentioned region the barometric means generally range from 30.2 to 30.3, while over the latter they fall to 29.9, or slightly below. The mean pressure exceeds 30.1 over nearly the entire country, the exceptions being the northern and southern Pacific coast regions and over the northern part of the country to the east of the Mississippi River. In eastern Tennessee and the Gulf States, except southern Texas, the mean pressure is slightly in excess of 30.15.

A comparison with the mean pressure for the preceding month shows an increase over the entire country, with the exception of the Canadian Maritime Provinces, where a slight decrease has occurred. The greatest difference is shown on the north Pacific coast, where the barometric means are from .20 to .25 higher than for November. Over the Rocky Mountain districts the difference ranges from .01 to .10, and over the central and southern districts to the eastward it is slightly in excess of .10

The departures from the normal pressure at the various Signal Service stations are given in the tables of miscellaneous meteorological data, and on chart iv they are exhibited by lines connecting stations of equal departure. In the Gulf States, central and southern Rocky Mountain districts, and on the Pacific coast, the mean pressure is above the normal, the departures not exceeding .10, except at Santa Fé, New Mexico, where it amounts to .11. Over the northern districts to the east of Washington Territory, and over the central portions of the country east of the Rocky Mountains, the pressure is below the normal, the departures being most marked in New England and portions of the lower lake region and middle Atlantic states, where they range from .10 to .12.

BAROMETRIC RANGES.

The monthly barometric ranges at the various Signal Service stations are also given in the tables of miscellaneous data. They were greatest in New England and least in the southern portions of Florida and California.

The following are some of the extreme ranges:

Greatest.	Inches.	Least.	Inches.
Eastport, Maine	1.76	San Luis Obispo, California	0.39
Portland, Maine	1.71	Key West, Florida	0.42
Boston, Massachusetts	1.61	Los Angeles, California	0.45
Albany, New York	1.61	Sanford, Florida	0.61
Oswego, New York	1.58	Fort Grant, Arizona	0.64
Block Island, Rhode Island	1.58	Cedar Keys, Florida	0.65
New Haven, Connecticut	1.57	Yuma, Arizona	0.65
Buffalo, New York	1.56	Fort Apache, Arizona	0.66
Erie, Pennsylvania	1.56	Prescott, Arizona	0.67

On the north Pacific coast, and in all districts east of the Rocky Mountains to the north of the thirty-fifth parallel, the monthly ranges exceeded 1.00.

AREAS OF HIGH PRESSURE.

Six areas of high pressure were traced from the Rocky Mountain regions to the Atlantic coast after the 6th of the month; previous to that date the high area, which had formed